

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/20/2008 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Diallo Crenshaw on 6/6/2008.

The application has been amended as follows:

Claim 29. A packet receiving method for multi-telecommunication over a local IP network, comprising the steps of:

determining whether a call connection to a second terminal connected to the local IP network is requested by analyzing a packet upon receipt of the packet from an IP network;

opening a channel for said second terminal according to the IP and port information of a destination in the packet upon request of the call connection; and

converting transmitted and received packets according to the IP and port information of a first terminal and said second terminal,

wherein respective terminals share a same IP address and are assigned different port numbers.

Claim 44. A method of conducting a telephone call using one IP address for a plurality of terminals connected to a local IP network, comprising the steps of:

determining whether a packet is assigned to the local IP network by a home gateway of the local IP network, upon receipt of the packet from an IP network;

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determining whether the packet is for a telephone call if the packet is assigned to the local IP network;

converting the header and payload of the packet according to IP and port information preset for the telephone call, if the packet is for the telephone call, and transmitting the converted packet to a terminal connected to the local IP network;

determining whether the packet is for Internet communication if the packet is not for the telephone call; and

converting the packet according to IP and port information preset for the Internet communication if the packet is for the Internet communication and transmitting the converted packet to the terminal connected to the local IP network,

wherein respective terminals share the same one IP address and said respective terminals are assigned different port numbers.

Claim 48. A method of conducting a telephone call using one IP address for a plurality of terminals connected to a local IP network, comprising the steps of:

determining whether a packet is for a telephone call by a home gateway of the local IP network, upon receipt of the packet from a terminal connected to the local IP network;

converting the header and payload of the packet, if the packet is for the telephone call, and transmitting the converted packet to an IP network;

determining whether the packet is for a first Internet communication if the packet is not for the telephone call;

converting the packet and transmitting the converted packet to the IP network; and
registering an IP address and a port number of the packet for a second Internet communication if the packet is neither for the telephone call nor for the first Internet communication,

wherein respective terminals share the same one IP address and said respective terminals are assigned different port numbers.

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3. Claims 1-27 and 29-56 are allowed.

4. The following is an examiner's statement of reasons for allowance:

5. Applicant's argued feature, as explicitly pointed out in the remarks of 12/20/2007, pages 2-3, is that a home gateway assigns an ID and a port to each terminal to differentiate terminals sharing one IP address in processing an incoming call and an outgoing call. Applicant has assigned a different port number to each of multiple terminals. These multiple terminals all share a single IP address. Applicant clarified that these port numbers are not the same as the port numbers assigned to applications in TCP/IP (e.g. SMTP on port 25, HTTP on port 80).

6. Applicant's invention is a bandwidth connection sharing feature where multiple terminals are treated as possessing a single IP address, and are communicated with through a gateway via use of both the IP address and a differentiating hardware port number. This IP address sharing method is not taught in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- 7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 8. Mayes et al. US 5,793,763
- 9. Bhatia et al. US 6,563,824
- 10. Morgan, David. "Workings of a Virtual Private Network, Part 1." Linux Journal. Volume 1999 Issue 68es. December 1999.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
Examiner
Art Unit 2145

/J. R. S./
Examiner, Art Unit 2145

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145